

Air Education and Training Command

Develop America's Airmen Today ... for Tomorrow

Tricks of the Trade

**How To Prepare For,
Survive And
Prosper
During AWC**



U.S. AIR FORCE

**DR. GRANT T.
HAMMOND
AWC/CSAT**

Integrity - Service - Excellence



Thought For The Day



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"The best audience is intelligent, well-educated, and a little drunk."



Alben W. Barkley, Vice President, 1949 - 1952



New AWC Motto

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**We've Upped Our
Standards**

Up Yours!



How This Developed



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- **These are some of my techniques for coping with the demands of academia**
- **They are not the only ways and may not be the best ways for you**
- **But you need to find and practice ways of becoming academically efficient . . .and effective.**



This Is Important!

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- **Start now and practice a system so it becomes automatic**
- **Want you to be effective in your thinking and the communication of your ideas**
- **Poorly communicated ideas are often taken as poor ideas**
- **We can't afford either**



Educational

General Order #1

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- **Always carry something to write on and something to write with**
- **Electronic or old fashioned is less important than taking notes**
- **Ideas may come at strange times and places and you need to capture them**
- **Write it down!**



Getting Started



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- You are all capable people or you wouldn't be here
- But you've been out of a school environment for a long time
- These are short cuts and tricks of the trade to cope efficiently with reading, writing and studying
- Rule #1--Always begin with a question



The Importance Of Questions

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- You can't find an answer without a question
- All data is equal until you discriminate among it by asking a question
- Training = how—answers
- Education = why—questions
- Questions are the key to learning



The Importance Of Questions

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- **Question everything, every reading, every one**
- **Questions help you to define and refine purpose and mission**
- **You can't learn to ask good questions unless you practice the skill and art of doing so**
- **Questions precede answers!**



Leadership And Questions

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- You have spent much of your career providing answers for other people's questions
- As a senior leader, you have a greater responsibility for questions
- If you don't ensure that the right questions are asked, the nation may not get the answers it needs



How To Formulate Questions



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- **Which level is most important?**
- **Informational**
 - Who
 - Where
 - When
 - What
- **Analytical**
 - How
 - Why
- **Prioritize within each category**
- **Focus on most important elements**



How To Formulate Questions



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- Then explore
 - A. Connections
 - B. Precedents
 - C. Implications
 - D. Causation
- Don't accept single factor analysis
- Make a case for the alternative
 - Stand things on their head
 - Reverse cause and effect



Learning to Ask Good Questions

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- On a 3x5 card, ask three questions for each seminar IP
- These can be questions you asked of the readings before you read the material
- They can be questions raised by the assignment
- They can be questions about differing perspectives in the readings
- They can be things not addressed in the IP but related to it



Learning to Ask Good Questions

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- Think about different types of questions and their utility
- Practice asking different kinds of questions
- Jot down what others ask and the questions you think were the best ones asked
- Get to the heart of the matter—the essential question on which all others depend
- Try and answer your questions and test the range of responses that are possible



Basic Kinds of Questions



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- **Memory Level Questions—**
 - Deal with information and basic facts
 - Involve naming, identifying, defining, designating
 - Who, What Where, When?
- **Evaluative Questions—**
 - Deal with matters of judgment, value and choice
 - Involve valuing, judging, defending, justifying
 - What do you think about ... ?



Basic Kinds of Questions



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- **Convergent Questions—**
 - Represent analysis and integration of information
 - Involve explaining, stating relationships, comparing and contrasting
 - Ask how, why, in what ways ...?
- **Divergent thinking—**
 - Generation of new ideas, perspectives, direction
 - Involve predicting, hypothesizing, inferring, reconstructing
 - Imagine; suppose; how might ...; if..., then...



Other Kinds of Questions



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- **Essential Elaborating**
- **Irreverent Irrelevant**
- **Hypothetical Unanswerable**
- **Provocative Strategic**
- **Telling Probing**
- **Inventive Planning**
- **Why bother? So what?**



Asking “Why?”



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- Always ask “why?”
- Become a four year old
- Taichi Ohno--ask “why?” five times
 - Form the habit of skepticism
 - Achieve a different level of understanding
 - Make significant breakthroughs
- Answers to the question include
 - Because
 - Why not?



Rules 2-5 for Study and Research

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- 2. **Never write on two sides of a note card or piece of paper**
- 3. **Always THINK about the answers to your questions before you go looking for them**
- 4. **Write it down! Your stray thoughts and insights may be the most important elements.**
- 5. **Keep your thoughts, papers and references organized, for each distinct project--if only in the same file, pile or corner of the room!**



How To Preview A Book



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Know what you have to confront

Title

Author

Publisher

Date of publication

Subtitle

What spin, point of view?



How To Preview A Book

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- **What is the purpose of reading book?**
- **Am I to be tested on it (how)?**
- **What do I need to get out of it?**
 - **(How much should I put into it?)**
 - **Facts / theories / methods / other**



How To Preview A Book



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- **Use book's organization to help you read**
- **Table of contents**
 - **Chapter titles - a road map**
- **Exec. Summary, preface, introduction**
 - **Why book written**
 - **How book organized**
- **Index**
 - **What does author spend time on**
 - **Where find particular info**



How To Preview A Book

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- Basic review should answer:
 - What is book about
 - How is it presented
 - Main idea, theme of work
 - Why is it important to me?
 - Why is it important to the assignment?



How To Read A Book



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- **What is the question?**
- **Read the introduction and conclusion**
- **Skim material to be read looking for:**
 - **Chapter subdivisions**
 - **Bold face, *italics*, underlining**
 - **Lists, numbers**
 - **Summaries, conclusions**



How To Read A Book



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- **Read with a purpose**
- **Preview first**
- **Identify the logic**
- **Read differentially'**
- **Annotate as you read**
- **Pay attention to what confuses you**
- **Notice relation to other scholarship**
- **Write notes about it**
- **Reflect on and evaluate the argument**



How To Read A Book

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- **Learn how author writes**
- **Know where to look**
- **Practice to increase skills and ability**
 - **Best for social sciences, not literature**
- **Vary your reading speed**
- **Note how you react to your reading**
 - **Connect to material**
 - **Make presentation easier**



How To Read A Book

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- **Make negative case against the author's arguments and evidence**
- You'll understand better if you:
 - Argue the opposite point of view
 - Find weaknesses and advantages in arguments
- Focus, don't forget purpose



“Only Connect”



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- **How are things alike?**
- **How are they different?**
- **Precedents?**
- **Analogies?**
- **Consequences?**
- **Limitations?**
- **What if...?**
- **Why not?**
- **How best...?**
- **Alternatives?**
- **... ?**



Observation



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**“Much learning doth
make thee mad”**

**ACTS,
XXVI, 24**



How To Study



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- **Know what you are to accomplish**
 - **What are main questions, tasks?**
- **Organize to do it -- focus!**
- **Plan time**
 - **Work in 30, 60 or 90 minute segments**
 - **Gradually lengthen time to 3 hours**



How To Study

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- **Plan your course of study**
 - Beginning, middle , end
 - Preview -- checkpoints
 - Practice different paces
 - Review what you have done
 - Is this accomplishing the task?
- **Take breaks -- reward yourself**



Systems For Notes



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- **SYMBOL SETS:**

- USE ★ FOR MAIN ARGUMENTS

- USE ✓ FOR SUB-POINTS



- BOX FACTS DATES, PEOPLE,
EVENTS

- CIRCLE KEY TERMS, IDEAS





Systems For Notes

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**KEY CONCEPTS
ARGUMENTS**

DEFINITIONS

ASSUMPTIONS

METHODOLOGY

MAJOR

EVIDENCE

SUMMARY

CONCLUSIONS



Systems For Notes

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Take notes as reminders

Take notes on notes for essence

Look for linkage, connections

Focus on what you *don't* know

Use all time available for efficiency

**Waiting for spouse or kids, driving
to AWC, etc.**

What questions remain after reading?

After studying?

Answer them!!



Using Notes For Tests

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Study with others after preparing yourself

Focus on what you don't know--not what you do know

Leave time to unwind before test



How To Take A Test (Essay)



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- **Read entire test and instructions - - 3 times**
- **Think!**
- **Define question**
- **State why it is important**
- **Tell reader what you will do, and how you will do it**



How To Take A Test (Essay)

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- **Organize answers into components**
 - **Outline response (argument, points)**
 - **List evidence (rule of three)**
- **Plan time, establish checkpoints**
- **Accomplish mission -- execute!**
- **End = 2 sentence summary and conclusion**
- **Check -- do beginning and end match?**



How To Take A Test (Essay)

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**Don't panic if you learn
something on the exam ---**

Say so !

**Show what you learned in taking
exam**



How To Do Research And Write A Paper

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- **What you like least**
- **The military tends to be an oral culture**
- **Power Point presents the outline**
- **Often doesn't provide the logic that underlies the selected data**
- **Writing is required because it makes you THINK and defend your views in detail**
- **It is an instrumental goal**
- **What you learn in the process of doing it is as important as the final product**

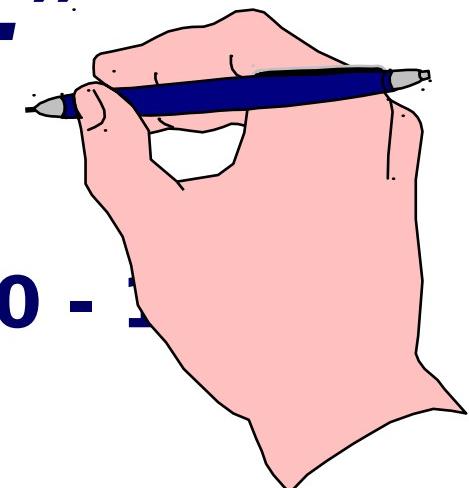


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"Writing is easy. All you do is stare at a blank sheet of paper until drops of blood form on your forehead."

Gene Fowler (1890 - 1968)





Research



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- Asking good questions
- Focusing on a particular problem
- Formulating an hypothesis
- Leads to a thesis
- Finding the facts
- THINKING about all of this
- Analyzing the components
- Synthesizing a new interpretation



Research and Plagiarism



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- “If you take from one person, it is plagiarism, if you take from many, it is research!”
- **WRONG!**
- Plagiarism is using the words or ideas of another as if they are your own, without proper citation
- **DON'T DO IT!**
- Learn to paraphrase, don't cite every sentence



Plagiarism



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- **Using words, ideas, data of another without citation--on an exam, a paper, any assignment--is lying, stealing and cheating**
- **It is a violation of the UCMJ and conduct unbecoming an officer**
- **It is grounds for dismissal**
- **If you have any doubts, ask your course instructor**



How To Write A Paper

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- **List all issues, points**
- **Cluster and arrange in logical order**
- **Get bibliography**
- **Begin research**
- **List main questions**
- **Read to answer these**
- **Take notes on your reactions**



How To Write A Paper

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Tell a STORY
In order to
Make a POINT
That will
Produce an OUTCOME



How To Write A Paper

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**The story is your argument or
thesis**

**The point to be made is the
purpose of the amassing of
evidence**

**The outcome is the conclusions or
recommendations**



What You Want to Avoid

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“Your manuscript is both good and original; but the part that is good is not original, and the part that is original is not good.”

Samuel Johnson



How To Write A Paper

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- **Write -- beginning , middle or end**
- **State conclusions**
- **Marshall evidence**
- **Finish all the way through**
- **Let it sit for a few days**
- **Revise and polish**
- **Fine art of writing is rewriting**



How To Write A Paper

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- **Read it aloud**
- **Intelligent layman test**
- **Let your spouse review it**
- **Revise and rewrite**
- **Turn it in**
- **Move on**



PARTING SHOT



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**"Unprovided with original learning,
uninformed in the habits of
thinking, unskilled in the arts of
composition,
I resolved to
write a book."**

Edward Gibbon, author

Decline and Fall of the Roman Empire



So What?--Why Is AWC Important?

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War is first

- Sought or avoided
- Planned and fought
- Won or lost

In the minds of human beings



So What?--Why Is AWC Important?

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**“Terrain doesn’t fight wars.
Machines don’t fight war. People
fight wars. It’s in the minds of
men that war must be fought.”**

USAF Col John Boyd



Remember . . .

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- **Learning to think quickly & well is more important than being taught what to think**
- **Your mind is a force multiplier and your best weapon**
- **How you think and how well you perform because of that makes all the difference**



THE BOTTOM LINE

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- Imagine the US fighting WW II without
 - Carrier aviation
 - Amphibious landings
 - Strategic bombing
 - Combined arms
- All were developed in the 1920s and 1930s
- What happens in war is often the result of peacetime military thinking and preparedness



You Will Be Called Upon Again To Defend The Nation

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- **How well you will accomplish this future mission will, in part, be dependent on how well you have learned to think about issues studied at the AWC**
- **This is your duty assignment**
- **It is a vital part of preparedness to provide for the common defense**



Parting Shots

Develop America's Airmen Today ... for Tomorrow



- “**We thought we had the answers—It was the questions we had wrong.**”
U2
- “**Questions and questioning may be the most powerful technology of all.**”
Jamie McKenzie, *Beyond Technology*
- Remember--some questions are better than others—rank times IQ is a constant.

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I n t e g r i t y - S e r v i c e - E x c e l l e n c e